Senior Baucus Libby Field Hearing with Susan Bodine April 5, 2007

1. What is the status of Libby work to date? (Libby Team)

A. To date EPA has completed Removal Actions at the former W.R. Grace Processing areas (Export Plant, Screening Plant) and large disposal locations (Libby High School, Libby Middle School, Plummer Elementary School, Seiftki Property). In addition, EPA has completed removals at over 790 other residential and commercial properties in and around Libby, plus a removal at the Troy High School. EPA has screened well over 4000 properties in and around Libby for the presence of asbestos-bearing vermiculite materials. Currently, there are approximately 700 remaining properties where EPA thinks a clean up is definitely needed. At another 400 properties EPA has found asbestos contamination, but at lower levels (or at relatively inaccessible locations). At these properties a decision whether a clean up is needed may depend on the final Baseline Risk Assessment (BRA) for the Site. To date, over 400,000 yds^3 of asbestos-contaminated material have been removed from the Libby area.

2. What site work is planned for this year? (Libby Team)

A. EPA has targeted 160 properties for clean up in Libby this year. This is down from last year (215) because the properties targeted this year are a bit larger, and the clean ups more complicated than those we have done in the past few years. In addition EPA will continue (and expand) the Outdoor Ambient Air Sampling program that was started last October as well as initiate a series of Indoor and Outdoor Activity Based Sampling (ABS) Programs. The ABS sampling is designed to evaluate the effectiveness of EPA's current property clean up program, and will also provide crucial asbestos exposure data needed for a complete BRA. EPA will also begin Remedial Investigation activities at the Mine Site as well as in the town of Troy. EPA will also collect additional Remedial Investigation data from the Export Plant as well as the former Stimson Lumber Mill.

3. What is the schedule for RODs for various OUs? (Libby Team)

A. A definitive schedule for RODs is largely dependent on progress made on the toxicity assessment work soon to be underway in EPA Headquarters, Office of Research and Development and Region 8. However, it is hoped that at some of the former processing areas, if exposure pathways have been completely severed, that RODs may come out sooner. Our tentative schedule:

1. OU1 (Export Plant) FY-09
2. OU2 (Screening Plant) FY-10
3. OU3 (Mine) FY-11
4. OU4 (Libby commercial/residential.)FY-11
5. OU5 (Stimson) FY-10

6. OU6 (BNSF Railroad) FY-10
7. OU7 (Troy) FY-11

4. What is EPA doing in Troy, MT? (Libby Team)

A. EPA has provided funding to the MDEQ through a cooperative agreement to begin screening properties in Troy, similar to what we have done in Libby. Over 1000 properties are targeted for screening. The investigation will begin in May 2007, and it is anticipated that this effort will take two field seasons to complete.

5. What has been presented in the most recent Congressional Briefings on key milestones (e.g. RODs)? (David Lopez)

6. What is the funding history including categories of funding? (David Lopez)

7. What are the key accomplishments (since NPL Listing) from the TRW that support the Libby RI/FS, Risk Assessment, Exposure Assessment, and Analytical Methods (Jim Konz)

8. Did we mislead residents on the protection level we have accomplished with our removal actions? (Libby Team)

A. No. ***Not sure what ya'll are looking for here***

9. Have we put residents at risk by conducting removal actions without having established a protective cleanup level? (Libby Team)

A. No. The one thing that is clear about Libby today is that it is much safer (in terms of amphibole asbestos exposure) than it was in 1999. Our clean up efforts in Libby to date have greatly reduced the chance that residents will come into contact with asbestos contaminated vermiculite materials, thus reducing their exposure to amphibole asbestos. Consequently, because of this reduced exposure, the risk faced by Libby residents is much lower. It is a fair question to ask whether the type of clean ups EPA has conducted to date will be sufficiently protective, or if additional types of efforts will be required. By undertaking the Outdoor Ambient Air and ABS sampling programs EPA will be much closer to answering these question.

10. Is it safe to live and work in Libby? (Libby Team)

A. While Libby is much safer today than it was seven years ago there are still potential risks pertaining to exposure to asbestos-contaminated vermiculite throughout Libby. That is why EPA has at least another 700 properties targeted for clean up. There is also a question of whether Libby Amphibole asbestos (LA) levels in outdoor ambient air in Libby, or around the mine or former processing areas are still elevated enough to pose a significant threat to public health. Unfortunately, at

this point in time EPA cannot answer this question in a definitive manner. We are currently collecting data that will inform us regarding the current level of asbestos in outdoor ambient air in the Libby area. This information will have to be coupled with a complete BRA (which will depend heavily on the on-going toxicity assessment work) before a more definitive answer can be given. The BRA will consider cumulative risk associated with multiple exposure pathways.

11. Will EPA need to return to homes or businesses to do more cleanup after they have been cleaned up once? (Libby Team)

A. If a complete BRA indicates that additional clean up work is needed on a given property then EPA will approach the property owner about returning for additional clean up.

12. What has been done to correct EPA's public information documents? (Libby Team, Ted Linnert)

A. EPA has pulled "Living with Vermiculite" and three other fact sheets from circulation and drafted replacements. These draft replacement fact sheets were distributed to the TAG, CAG, Lincoln County Commissioners, the Libby O&M Workgroup, and a few citizens who requested them so that they could provide comment. Comments are expected by April 1, 2007, and the fact sheets will be finalized shortly thereafter.

13. What is the status of EPA/DOJ's enforcement efforts? (Region 8, Matt Cohn)

A. EPA was awarded a $54,000,000 judgment against W.R. Grace by the Federal District Court of Northern Montana. This judgment has been upheld through the Supreme Court. The judgment is part of EPA's claim in the W.R. Grace Bankruptcy proceeding in Delaware. EPA is also pursing two negotiations with W.R. Grace. The first is a settlement of all outstanding cost recovery claims with W.R. Grace pertaining to the Libby Site (including the $54M). The second negotiation is for the conduct of a Remedial Investigation/Feasibility Study for the Mine Site (OU3), which may be concluded by May of this year.

14. What was our response to the 2006 Libby IG Report? (Doug Ammon)

15. What is the Libby Action Plan and its status? (Doug Ammon)

16. What are the steps needed to develop a protective cleanup level? (Libby Team)

A. EPA needs to complete a full Exposure Assessment, starting with the Outdoor Ambient Air and the ABS Programs. EPA then needs to complete the toxicity assessment work (which includes the collection of data to evaluate sampling and

analytical methodologies and epidemiological endpoints as well as toxicity) so we can develop an appropriate risk model with which to quantify risk posed by Libby amphibole asbestos (LA). EPA then needs to combine these two pieces in a Libby Site-Specific BRA, taking into account current and future conditions in Libby, as well as past exposures.

17. How long will it take to establish a protective cleanup level? (Libby Team)

A. If the toxicity assessment works goes as currently scheduled then a BRA is anticipated by 2010-11.

18. What will this uncertainty do to local efforts to promote economic redevelopment etc.? (Libby Team)

A. EPA has made extensive efforts in cooperation with the Libby business community to help foster a positive economic climate in Libby. By most economic measures (e.g. unemployment, home sales) the clean up work in Libby has not had a negative effect on the local economy. In fact the Libby area has had its best home sales ever over the last two years, and as of February 2007 only 44 homes were on the market.

19. What was underway prior to the IG Report? (Stiven Foster/NCEA)

20. What impact has funding limits had on assessments and cleanup work? (Libby Team)

A. EPA has been putting the vast majority of its resource and budgets into the removal of asbestos-contaminated vermiculite materials from areas in and around Libby. While this has resulted in making Libby safer, it has prevented us from initiating large-scale investigations in Troy and at the Mine. We are also behind where we would like to be regarding our ability to better model quantitatively the risks posed by exposure to LA. That said, EPA has made the adjustments in its approach to the Site so that these problems can be rectified in the near term.

21. What is the difference between an ATSDR Public Health Assessment and EPA Risk Assessment? (David Cooper)

22. What are the options for longer-term medical surveillance and treatment as a Superfund response action? (David Cooper)

23. What is EPA's process for developing toxicity values for the Libby Amphibole? (NCEA)

24. Are animal studies necessary for the development of toxicity values? (NCEA)

A. While the relevance of good quality epidemiological data for the development of toxicity values is indisputable, such data often suffer from significant uncertainties associated with the measurement (quantification) of exposure among subjects. In other words, data used to characterize exposures in the population of interest are often incomplete and lack adequate detail for accurate reconstruction of exposure levels over time. Additionally, such data are limited by the shortcomings of the sampling and analytical methodologies in use at the time. That is, when analytical measurements were taken, nearly all of the epidemiological data were representative of occupational rather than residential exposures. Additionally, the epidemiological studies estimated asbestos levels using either Phase Contrast Microscopy (PCM) or impingers methods. These methods were not sensitive enough to account for a large portion of the fiber size distribution: thinner fibers (<0.25 µm) and fibers shorter than 5 µm in length.

Comment [R1]: Some good material, but needs editing and translation to lay language.

Animal toxicity data, when used in conjunction with data from exposed human populations, can help reduce many of the uncertainties associated with human data and lead to the development of more reliable toxicity values. Thus, animal toxicity studies are essential for the development of accurate and reliable toxicity values.

The animal toxicity studies will provide critical information on the relationship between intermittent, short-term exposures and adverse outcomes. This is of particular interest at the Libby Site because we have folks there who are experiencing short term, episodic exposures and we must be able to evaluate their risks in a meaningful manner.

The toxicity studies will also provide important information on the relative potency of Libby Amphibole compared to other forms of asbestos, as well as insight into pathological processes related to the development of disease that may inform how we apply the Site-specific RfC and Cancer Slope Factor.

Additional information that can be gained from the toxicity studies involves identification and characterization of biomarkers of exposure and/or disease. The former, biomarkers of exposure, could enable us to monitor potential exposures from residual contamination post cleanup. The latter (biomarkers of disease) would help us track disease in the population in a non-invasive manner (as opposed to tissue collection from cadavers).

The inhalation toxicity studies specifically will provide key toxicity information based on a relevant route of exposure (as opposed to intratracheal instillation experiments which, though they can provide valuable information, do not accurately represent a realistic human exposure route).

Another important outcome of the inhalation toxicity experiments is quantitative dosimetry data - data that will tell us how much Libby Amphibole gets deposited in tissues of interest. This information provides critical insight into the relationship between dose (in terms of both concentration and time) and adverse effects. These quantitative dosimetry data will be used in the animal dosimetry model, which informs the human dosimetry model.

25. What information will be developed from NHEERL research that will improve the toxicity assessment for Libby Amphibole? (NHEERL)

26. What efforts are underway to continue and enhance cooperation with ATSDR and EPA efforts at Libby? (Steve Jones)

27. What was ATSDR intent by the Libby PHA recommendation: "More research is needed, specifically: toxicological investigation of the risks associated with low-level exposure to asbestos, especially Libby asbestos; clinical research on treatments for mesothelioma and asbestosis; and epidemiology studies to better characterize the link between exposure to asbestos and disease."? (Steve Jones)

28. What is EPA doing to improve the analytical methods for Libby asbestos? (Jim Konz)

A. EPA has been working to understand the complexities of measuring LA and to improve upon existing analytical methods ever since EPA arrived at Libby in 1999. Many sampling and analysis methods for air, dust, soil and bulk materials were originally designed to support occupational settings rather than the residential/commercial settings in Libby and Troy. EPA has and continues to fine-tune sampling and analysis protocols for electron and optical microscopy methods. A few examples include: standardization of fiber counting protocols, addition of performance evaluation samples, improved sampling strategies for air, dust and soil for increased sample representativeness and improved analytical sample preparation methods.

Through an interagency agreement with the US Geological Survey (USGS), EPA has and continues to receive technical support in the analysis and characterization of LA. Great strides have been made in understanding the morphological and mineralogical make-up of LA.

Currently EPA has several validation studies planned to further our understanding of LA sampling and analysis. These studies include an evaluation of: effectiveness of short fiber collection on 0.8 µm filter versus 0.45 µm, comparability of direct and indirect preparations, effectiveness of low flow rate-long period sampling, of Additionally, EPA plans to investigate innovative methods for their potential use to identify presence or absence of LA in soils as levels below 0.2% LA by weight.

29. Can you explain EPA's activity based and ambient monitoring programs? (Jim Konz)

Suggest brief explanation and cite TRW framework document

***If Jim can't, I can*.**

28. Why hasn't EPA made this its top priority? (Phyllis Anderson)

29. Why has EPA cut funding for Libby? (David Lopez)

30. Can we get more TAG money? (Libby Team)

A. The amount of money available for the TAG grant is specified by law, and it is limited to $50,000 per Site for the period of the grant. Currently, the Libby TAG Grant is up for renewal (or replacement) and any interested group can apply.

31. Can we get long term health care? (Libby Team)

A. Apparently nobody can in the United States unless they are reasonably well off, are relatively healthy, and/or have access to good insurance through their employer. I have no idea why anyone expects us to answer this question.

Comment [R2]: Probably not considered politically correct response …

32. Why does it take an OIG audit to get EPA to take action? (Doug Ammon)